Notes from the 8/30/05 MI BPM Upgrade Meeting
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These notes can be found in Beams docDB #1526.

Agenda as announced:

  MI BPM requirements update : Dave and Alberto
  Combiner Board status : Manfred
  VME crate purchase status : Bob Forster
  MI BPM signals to FCC3 : Bakul
  MVME processor status : Luciano, Margaret, Steve
  Transition Board status : Manfred
  Timing Board : Bill
  MI30 status : Peter
  Service Building survey/BLM coordination : Tim, Marv
  Front-end software : Luciano
  Online software : Brian
  Validation/beam studies status : Rob Kutschke (but he is away
                          this week)
  Other Business

0. Announcements - Bob and Steve

  - Bob talked about the need to get the project moving, to get
specific questions answered about requirements if necessary so that
progress can be made, about getting prototype "Luciano-type" FE software
into the accelerator as soon as practical, to complete our MI30 studies,
etc.

  - Steve mentioned that if we need additional meeting days and times
we should agree on some specific times that make sense and keep them
available.

1. Requirements update - Dave

  - Dave has given a rewritten section to Alberto. Given Alberto's
service as MI coordinator this has not yet been released to the project.

  - Steve mentioned that Alberto has promised to update the
requirements document with Dave's rewritten section as well as a
description of required measurements during the various cycles by Friday
Sept 2.

  - We discussed the review part and touched on a few of the
recommendations. The issue of tunes was brought up - presumably the
tunes are not a requirement but providing the data that is used to

derive the tunes is the real requirement. Also the issue of I6
modification, given I6's critical nature. Brian indicated that a
modification of I6 may in fact be the best way to go.

2. Combiner Board status : Vince, others

  - The combiner boards are due in a couple of days. They are being
shipped to FCC.

  - The question came up of who is going to receive them, store them,
test them, install them, etc. Clearly there are many things that will
have to be done to get the boards installed in their housings, labelled
properly, installed in the tunnel, etc. Some combination of Bob
Forster, Tim Kasza, Manfred, Marv should work out the details. The
question of handling class 1 materials (the boxes coming out of the
tunnel may all be class 1) also needs to be addressed.

  - The details on installation will depend on the shutdown schedule.
We hope to know more by next Tuesday's meeting and we can have further
discussions then. It would be good to get the boxes installed in the
tunnel and to have that work completed.

3. VME crate purchase status : Bob Forster/Vince

  - Bob was not able to make it. We will move forward to purchase VME
crates using a MI BPM specification (needs to go into beams-docDB). We
would like crates very similar to the TeV/Transfer Line or BLM crates
for sparing, software, etc. reasons. Bob will work with procurement.

  - We discussed the TeV crates' status. There is an ECO that we need
to apply to the 31 crates. This can be done in the field. Bob W.
suggested that this be accomplished as soon as possible. Marv and Tim
will work out some details and move forward.

4. MI BPM signals to FCC3 : Bakul

  - Lots of progress has been made here and it is thought that the
final connection for getting signals to the FCC3 test stand will be made
by Greg Vogel when he gets an opportunity (all accelerators off).

5. MVME processor status : Luciano, Margaret, Steve

  - A board (5500) is in place in a teststand and is being registered
with AD networking so it can be used to test software and understand how
much of a change will be needed to use the 5500. No major changes are
anticipated but a real test is necessary to verify that.

6. Transition Board status : Manfred

  - Most of the components for the first prototype 2 channel analog
only board are in hand. The board will be tested starting this week. A
few parts are missing for the 2.5 MHz signal path.

  - The pre-series is still in the design phase and it is still planned
to finish the design by mid-September.   Layout occurs after that.

7. Timing Board : Bill

  - Firmware changes are coming along. There will be up to 32 "timing
alarms" available in the timing board. Bill asked if that is enough and
everyone thinks it is.

  - Bill asked many questions about requirements for minimum and
maximum times, resolution of the alarm, reference to TCLK, etc.

  - Greg Duerling is just about ready to start on the new board layout.
 The new board will have the capability of using a PLL, if we find that
is necessary.

8. MI30 status : Peter/Bob W.

  - A 2-Echotek, 2 timing-system setup was put together in MI30.
Unfortunately it has not yet been able to take good data. Peter is busy
debugging the system. The primary goal (besides taking data useful for
MI operations) is to test the Bill Haynes 10/7*RF timing board and its
ability to provide signals that can be used to take data.

  - Bob showed a plot with data taken during a pbar acceleration last
Friday using 2.5 MHz RF. The position and sum plots look quite
encouraging and probably quite useful.

  - Bob asked about getting "Luciano's software" into MI30.

9. Front-end software : Luciano

  - To get software into MI30 some work on the VME driver needs to
happen, among other things. This is being worked on by Luciano and Steve.

  - The teststand in FCC3 is able to do closed-orbit and 1 TBT per cycle.

  - Work is happening to port the code the a MVME 5500.

- Discussion about TCLK's, measurements, MI30, etc., as well as other plans for the future.

10. Service Building survey/BLM coordination : Tim, Marv

  - All of the BLM crates are installed. Marv is thinking about locations, etc. for the upgraded MI BPM electronics. In the TeV upgrade Ken, Stew and Marv (and a few others) were involved in mapping out the buildings, rack occupancy, etc. Tim, Marv and Ken will talk about doing a similar "survey" of the MI service buildings and get people's availability, etc.

11. Online software : Brian

  - Brian is helping out with the 5500 MVME port -- getting it set up as a development node, etc.

  - Brian is asking that the data structures for the MI BPM data be finalized.

12. AOB

  - Duane mentioned that the cable that connects Manfred's crate to the timing card has to have a physical path to get there -- may require a hole in the VME backplane or something. People should think about the details of the 2-crate layout.

  - Next week we will meet on Tuesday (even though Monday is a holiday) and we will get updates on all of the above activities.